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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,797	09/11/2003	Philip A. Harding	MFLEX.007A	5258
20995	7590	09/20/2005		
KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614			EXAMINER DONOVAN, LINCOLN D	
			ART UNIT 2832	PAPER NUMBER

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/659,797

Applicant(s)

HARDING, PHILIP A.

Examiner

Lincoln Donovan

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 and 11-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 11-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 07-20-05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 and 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roy et al. [US 3,372,358] in view of Krone et al. [US 5,781,091].

Roy et al. disclose an inductive device comprising:

- a slab of ferromagnetic material [20, column 2, lines 7-72] having a series of rows and columns of space via holes [30] therethrough;
- at least one winding [32] extending through the via hole; and
- electrical printed circuits [22, 23] formed on the top and bottom of the slab [figure 4] connectable with the winding.

Roy et al. disclose everything claimed except the at least one winding being a plurality of windings forming a transformer, the specific type and configuration of the transformer and the specific connections made with the electrical circuits.

Krone et al. discloses a circuit board [44, figure 15] having a plurality of vias [48] accommodating primary and secondary conductors [figure 25, column 4, lines 37-51] forming a transformer.

It would have been obvious to one of ordinary skill in the art at the time the invention was made that the winding via portion of Roy et al., could be modified to

include multiple conductors to form a transformer, as suggested by Krone et al., in order to accommodate the transformer assembly within the circuit arrangement.

Both Roy et al. and Krone et al. disclose multiple embodiments of the conductors on the circuit board/magnetic slab. The specific type of transformer, turns ratio and arrangement of the conductors therewithin would have been an obvious design consideration based on the intended application of the device.

### ***Response to Arguments***

Applicant's arguments filed 06-27-05 have been fully considered but they are not persuasive.

Applicant argues that the cited references do not disclose "passing a primary current carrying conductor and a secondary, or sensing, conductor through the same via 402." Applicant has not claimed such a limitation. Applicant merely claims that the conductors extend through the same holes of the series of spaced holes on slab of the conductor. Applicant has not explicitly claimed the conductors extending through a same single hole on the slab. Note: in claims 1 and 13, it is stated that there is a slab having a series of rows and columns of spaced via holes therethrough with a first primary conductor extending through a "first one of said via holes formed..." and a "second primary conductor extending through a second one of said via holes formed." In claim 2, it is stated that there is a slab having a series of spaced via holes with the primary and secondary extending through the same holes. In claims 11-12, it is stated that the primary and second conductors pass through holes on a slab. Applicant has not claimed the conductors necessarily physically passing through the same hole(s).

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

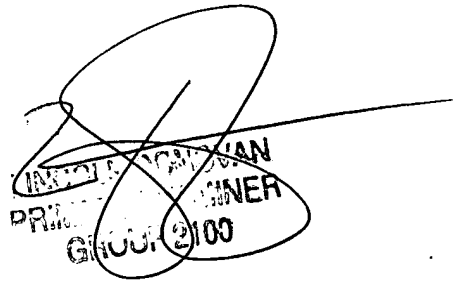
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lincoln Donovan whose telephone number is 571-272-1988. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Enad Elvin can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ldd

A handwritten signature in black ink is written over a circular stamp. The stamp contains the text "INVENTOR'S SIGNATURE" at the top, "PRINCE" on the left, "OWNER" on the right, and "GROUP 2100" at the bottom.